

Appl. No.: 10/605,383
Amdt. Dated: 7/10/2006
Reply to Office action of: 05/02/2006

AMENDMENTS TO THE DRAWINGS:

There are no amendments to the drawings being presented here with.

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REMARKS/ARGUMENTS

Claims 1 – 18 remain in this application. Claims 1 and 10 have been amended to define more correctly Applicants' claimed invention. Support for these amendments to Claims 1 and 10 may be found, for example, in Figures 1 and 2 as well as paragraphs [0010], [0016], and [0020].

Claims 1 – 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba in view of Siedlik (US Patent 5910029). Specifically, the Examiner states:

With respect to claim 1, Inaba teaches a snap-in cluster attachment (Fig. 1) for attaching the lower edge of a cluster housing to and aligning said cluster housing within an IP retainer, and allowing connections to the rear of the cluster housing before final positioning and attachment within said IP retainer, by connecting the at least one mounting pin on the lower edge of the cluster housing into place in the corresponding at least one IP retainer opening having mounting pin retaining members located therein comprising: a) at least one attachment member (Fig. 1, element 23) fixedly attached to the lower edge of the cluster housing (Fig. 1, element 20), said attachment member comprising a body having two ends (Fig. 2, element 23 the bottom and the top) and two sides (Fig. 2, element 23 the sides that lead up to the bottom of the housing) wherein one end is attached to the lower edge of the cluster housing and the other end terminates in a mounting pin (Fig. 1, element 23) oriented perpendicular to the sides of the attachment member; and b) at least one corresponding opening (Fig. 3, opening element 16) in the IP retainer having mounting pin retaining members (Fig. 3, elements 16 vertical side walls) disposed therein for receiving, aligning and holding the mounting pin of the at least one attachment member. Inaba does not teach that at least one of said retaining members being positioned in opposition to the rest of said retaining members and that the mounting pins are snapped onto the lower edge of the cluster housing into place in the corresponding retainer having mounting pin retainer clips. Siedlik teaches mounting pins (Fig. 6, elements 44) and retaining clips (Fig. 6, elements 112), wherein at least one of the retaining clips (Fig. 6, element 54) is positioned in opposition to the

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rest of said retaining clips are snapped onto mounting pin retainer clips. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the mounting pin retainer members, taught by Inaba, with the mounting pin retainer mounting members, taught by Siedlik, for the purpose of easily attaching and securing the cluster housing to the IP retainer with the added feature that once the cluster housing is connected to the IP retainer if you let go/drop the cluster housing it stays connected reducing the chance of breaking.

With respect to claim 2 and with all the limitations of claim 1, Inaba teaches that said snap-in cluster attachments allow the cluster housing to be rolled upward (Figs. 3, 4, 5 and 6) for fixedly attaching the cluster housing by its top edge to the IP retainer.

With respect to claim 3 and with all the limitations of claim 1, Inaba teaches that said at least one attachment member and at least one corresponding opening comprises 2 or more attachment members and 2 or more corresponding openings (Fig. 2, elements 23 and corresponding openings 16).

With respect to claim 4 and with all the limitations of claim 1, Inaba teaches said attachment members are molded as an integral part (Fig. 1) of the cluster housing.

With respect to claim 5 and with all the limitations of claim 1, Inaba teaches said openings in the IP retainer having mounting pin retaining members disposed therein are molded as an integral part (Fig. 1) of said IP retainer.

With respect to claim 10 Inaba teaches a snap-in cluster attachment for attaching the lower edge of an instrument cluster housing to and aligning said cluster housing with in, an IP retainer, and allowing connection to the rear of the cluster housing before final positioning and attachment within said IP Retainer, by connecting the at least one mounting pin on the lower edge of the cluster housing into place in the corresponding at least one IP retainer opening having mounting pin retaining members located therein comprising: a) at least one attachment member (Fig. 1, element 23) fixedly attached to the lower edge of the instrument cluster housing (Fig. 1, element 20), said attachment member comprising a body having two ends (Fig. 2, element 23 the bottom and the top) and two sides (Fig. 2, element 23 the sides that lead up to the bottom

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of the housing) wherein one end is attached to the lower edge of the instrument cluster housing and the other end terminates in a mounting pin (Fig. 1, element 23) oriented perpendicular to the sides of the attachment member; and b) at least one corresponding opening (fig. 3, opening element 16) in the IP retainer having mounting pin retaining members (Fig. 3, elements 16 vertical side walls) disposed therein for receiving, aligning and holding the mounting pin of the at least one attachment member; thereby providing for attaching the instrument cluster housing lower edge to the IP retainer by snapping the at least one mounting pin on the lower edge of the instrument cluster housing into place in the corresponding at least one IP retainer opening having mounting pin retaining members located therein. Inaba does not teach that at least one of said retaining members being positioned in opposition to the rest of said retaining members and that the mounting pins are snapped onto the lower edge of the cluster housing into place in the corresponding retainer having mounting pin retainer clips. Siedlik teaches mounting pins (Fig. 6, elements 44) and retaining clips (Fig. 6, elements 112), wherein at least one of the retaining clips (Fig. 6, element 54) is positioned in opposition to the rest of said retaining clips are snapped onto mounting pin retainer clips. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the mounting pin retainer members, taught by Inaba, with the mounting pin retainer mounting members, taught by Siedlik, for the purpose of easily attaching and securing the cluster housing to the IP retainer with the added feature that once the cluster housing is connected to the IP retainer if you let go/drop the cluster housing it stays connected reducing the chance of breaking.

With respect to claim 11 and with all the limitations of claim 10, Inaba teaches that said snap-in cluster attachments allow the instrument cluster housing to be rolled upward (Figs. 3, 4, 5 and 6) for fixedly attaching the instrument cluster housing by its top edge to the IP retainer.

With respect to claim 12 and with all the limitations of claim 10, Inaba teaches that said at least one attachment member and at least one corresponding opening comprises 2 or more attachment member and at least one corresponding opening comprises 2 or more attachment

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members and 2 or more corresponding openings (Fig. 2, elements 23 and corresponding openings 16).

With respect to claim 13 and with all the limitations of claim 10, Inaba teaches said attachment members are molded as an integral part (Fig. 1) of the instrument cluster housing.

With respect to claim 14 and with all the limitations of claim 10, Inaba teaches said openings in the IP retainer having mounting pin retaining members disposed therein are molded as an integral part (Fig. 1) of said IP retainer.

With respect to claims 6, 7 and 15, 16 with all the limitations of claims 1 and 10 respectively, Inaba teaches all of the limitations of the claims including the mounting pin members and the pin retaining members but does not teach the specific dimensions of the mounting pin and pin retaining members. Hinge like mounting pins and retaining members are well known in the art, the diameter size of the mounting pin and the wall thickness of the retaining members range in values from very small to very large depending on their particular use, in fact look at a pair of glasses, a door, and a jewelry box and you will see a variety of sizes. It would have been obvious to one of ordinary skill in the art at the time of the invention to make the diameter of the mounting pin and the wall thickness of the retaining member any size, including making the diameter of the mounting pin between 2.0mm and 10.0mm and making the wall thickness of the mounting pin retaining member between 1.0mm and 5.0mm, in order to fulfill particular design needs depending on the specifics of the structure. Furthermore it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

With respect to claims 8, 9 and 17, 18 with all limitations of claims 1 and 10 respectively, Inaba teaches all of the limitations of the claims including a cluster housing, attachment member, IP retainer and mounting pin retaining member but does not teach the particular material used to make these elements. There are many known materials used to make cluster housings and attachment members as well as IP retainers and mounting pin retaining members, materials such as various metals and plastics have long been known to be used in the art and particular

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material choices are made depending on the needed properties for the specific conditions of use. It would have been obvious to one of ordinary skill in the art at the time of the invention to make the cluster housing, attachment member, IP retainer and mounting pin retaining member, taught by Inaba, of any appropriate material including making the cluster housing and attachment member of styrene and the IP retainer and mounting pin retainer element in order to meet specific needed properties. Furthermore it has been held that to be within the general skill of a worker in the art to select a known material on the basis of its suitability of the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

In response to Applicant's earlier arguments the Examiner states:

Applicant's first argument that Inaba does not teach snapping the cluster housing into the IP opening is moot in view of new grounds of rejection. Applicant's second argument regarding claims 1 and 10 is that Inaba does not allow for electrical connections at the rear of the cluster housing before final positioning and securing within the IP opening, examiner respectfully disagrees. Once the mounting pin is in the retainer the housing still has the ability to rotate, furthermore fig. 5 shows an electrical connection is made before the final positioning and securing is complete. Applicant's final argument is that the Inaba discloses the need for a support channel being located at the rear of the IP retainer opening and this requires that the IP opening have a bottom surface to located said support channel within whereas the applicants' claimed invention does not require this critical element. Examiner wishes to point out that there is no limitation in the claimed invention that excludes this feature and thus the argument is improper.

Applicant respectfully traverses these rejections. The key to Applicants' invention is the ability to snap the cluster housing or instrument cluster housing into the IP opening and secure it there such that it is retained in said IP opening before the housing top edge is fixedly secured to said IP opening. Further the claimed invention provides the ability to align the housing in the IP opening without the need for the IP opening to have sidewalls with alignment guide channels and the cluster housing having corresponding guides. Applicants' claimed invention eliminates these two critical elements and also allows for

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the electrical connection at the back of said housing to be carried out before final positioning and securing within the IP opening eliminating the need for special electrical connector mating structures, as well as eliminating the need for the critical element of a rear lower surface within the IP retainer opening.

A fair reading of Inaba et al. reference discloses an electrical cluster housing having at least one rotation shaft which is placed, but not snap fit, into a corresponding support groove and which requires at least one guide on each side of said cluster housing to mate with at least one corresponding alignment guide channel in side walls to the IP housing opening to align the cluster housing during positioning of said cluster housing for fixed attachment of said cluster housing upper edge in said IP housing opening. Furthermore, because the support groove does not hold the cluster housing any electrical connections at the back of the cluster housing must be self-mating because the cluster housing must be in final position before it is secured in the IP opening. Furthermore, having the support groove located at the rear of the IP retainer opening prevents the Inaba et al. reference from teaching or suggesting the connection of plugs or other devices to the back of the cluster housing outside of the IP retainer after the cluster housing is mounted by its bottom edge but before it is rotated into final position within the IP retainer opening. Additionally, the requirement of the support channel being located at the rear of the IP retainer opening requires that the IP opening have a bottom surface to locate said support channel within whereas Applicants' claimed invention does not require this critical element. The dependent claims depending on clearly allowable independent claims are therefore also allowable. Clearly, when viewed in this light the Inaba et al. reference does not disclose, teach, or suggest Applicants' claimed invention.

The Inaba et al. reference is not combinable with the Siedlik et al. reference because the Inaba reference does not provide the necessary impetus to modify the disclosed invention to allow the inclusion of the snap locking features of the Siedlik et al. reference. In fact the Inaba et al. reference teaches away for such snap locking feature by teaching the necessity of an IP opening to have sidewalls with alignment guide channels and the cluster housing to have corresponding guides to provide for mounting the cluster housing in proper orientation within the IP opening. And even if the Inaba et al. and Siedlik et al. references were combinable, which they are not, they do not disclose, teach, or fairly suggest how one of ordinary skill in the appropriate art is to remove critical portions of Inaba et al. and replace them with bits and pieces of Siedlik et al. without first

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having knowledge of Applicant's claimed invention. Clearly, when viewed in this light there is no combination of the Inaba et al. reference and the Siedlik et al. reference that discloses, teaches, or suggests Applicants' claimed invention.

A fair reading of the Siedlik (US 5,910,029) reference discloses a two-piece battery terminal shield that does utilize a pin snapped into a snap locking channel. However, there is no disclosure of how connect an electrical connector mounted in an instrument panel or any other panel through the snap lid before the lid is closed. In fact the lid has no connection function whatsoever; it is simply a cover over an automotive battery terminal after the terminal has been connected to the automobile electrical system through an associated battery cable and cable clamp. Furthermore, there is not disclosure, teaching to suggest the legally required impetus necessary within its four corners to direct one of ordinary skill in the art to make such modifications necessary to combine this reference's teaching with that of the teaching of Inaba to reach Applicant's claimed invention without first having read Applicant's application. Clearly, when viewed in this light there is no combination of the Inaba et al. reference and the Siedlik et al. reference that discloses, teaches, or suggests Applicants' claimed invention.

Applicants respectfully but strenuously traverse the Examiner's response to Applicants' arguments of 2/20/2006. The Examiner's statement that Figure 5 of the Inaba et al. reference shows that electrical connections before final positioning of the cluster housing is clearly not correct. A careful review of Figure 5 shows, in fact, that the electrical connectors (not labeled) of the connector (15) situated in the back wall of the IP (11) opening are not yet connected and that because they are rigidly positioned in a horizontal attitude can not be properly connected until such time as the cluster housing (20) is fully installed into the IP opening. This is further clearly shown, for example, by "As a result of this rotational movement, as shown in Fig. 5, the connector fitting portions 22 of the meter 12 can be automatically directed to the connectors 15 of the instrument panel 11, respectively, and be fitted thereto by a final pushing operation" (Col. 3, lines 56 – 60). Thus, the electrical connections are not made until the cluster housing has been finally positioned within said housing and not before.

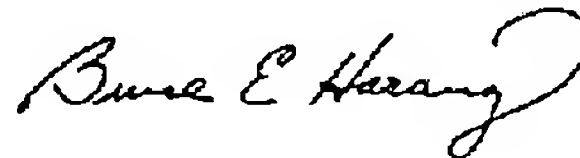
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Applicants also traverse the Examiner's reasoning as to the argument that Applicants' claimed invention does not require guides and guide channels, especially in light of the current amendments to Claims 1 and 10.

Clearly, when viewed in this light, the basis of maintaining the Inaba et al. reference against Applicants' claimed invention is improper and Applicant's request it be removed.

In view of the remarks herein, and the amendments hereto, it is submitted that this application is in condition for allowance, and such action and issuance of a timely Notice of Allowance is respectfully solicited.

Respectfully submitted,



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